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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gregory Donald Troxel

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EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,807

Applicant(s)

TROXEL ET AL.

Examiner

Frank Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This Office Action is a response to communications dated 9/27/04 and 10/25/04.

Claims 1-16 are pending in the application.

Terminal Disclaimer

2. The terminal disclaimer filed on 07/27/04 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of copending application 09/737,108 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Information Disclosure Statement

3. There is an indication the Applicants attempt to file an Information Disclosure Statement (IDS) to have the copending applications listed; however, there is no form 1449 for Examiner to consider.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-4, 6-7, 9-12, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Agraharam et al (USP 6,407,988) (hereinafter "Agraharam").

Regarding **claim 1**, in accordance with Agraharam reference entirety, Agraharam discloses a method for use in delivering messages over a network (Figs. 2-3), the method comprising:

(a) receiving a network layer address (mobile home address) of a first node (mobile node) at a first router (foreign agent) on a first sub-network (foreign network), the first sub-network being topologically foreign with respect to the network layer address of the first node (*col. 4, lines 51-59, Agraharam discloses mobile node register with foreign agent 104 to obtain a "care-of address". In doing so, mobile node would send its home address in the registration message to let the foreign agent know its presence in the foreign network and its home agent*);

(b) sending the network layer address (mobile home address) of the first node (mobile node) and the network layer address (care-of address) of the first router (foreign agent) toward a first remote node (corresponding node or "pseudo home agent") at a second sub-network (network that "pseudo home agent" or corresponding node belongs to), the second sub-network being topologically foreign with respect to the network layer address of the first node (*col. 5, line 63 to col. 6, line 6, Agraharam discloses home agent 104.1 signals the agent 104.3 with a request to become a "pseudo home agent" for the mobile host 100.1, identifying the mobile host's home address and its care-of address*);

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(c) receiving at the first router (foreign agent) a message tunneled by the first remote node ("pseudo home agent" or corresponding node) using the sent network layer address (care-of address) of the first router (foreign agent), the message tunneled by the first remote node in response to a message at the first remote node addressed to the first node (mobile node) (*col. 6, lines 7-11, Agraharam discloses corresponding node transmits data to the mobile node through the pseudo home agent. The pseudo home agent tunnels the packet to the foreign agent using mobile node's care-of address*);

(*col. 6, lines 12-14, Agraharam discloses foreign agent retransmits the data to the mobile host. In doing so the foreign agent must de-tunnel the message and retransmits data. The recitation thereat reads on steps d and e below*)

(d) de-tunneling the message tunneled toward the first router by the first remote node; and

(e) sending the de-tunneled message toward the first node;

whereby (a)-(e) proceed without requiring the communication with any node on a sub-network that is topologically home sub-network with respect to the network layer address of the first node (*note: the above steps disclosed by Agraharam involves only pseudo home agent, not home agent of the mobile node as required by the claimed invention. Thus, it clearly anticipates the claimed invention.*)

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Agraharam also discloses wherein an initial message sent from the first remote node (corresponding node) toward the first node (mobile node) after the first

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node (mobile node) establishes communication (register) with the first sub-network (foreign network) is not received by any node on a sub-network (home network) that is a topologically home sub-network with respect to the network layer address (mobile node's home address) of the first node (mobile node) (*col. 6, lines 7-14, Agraharam discloses the data transmits from corresponding node toward mobile node does not involves home agent*).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales discussed above), Agraharam also discloses wherein (a)-(e) proceed without communication with any node on the sub-network that is topologically home sub-network with respect to the network layer address of the first node (*see rationales applied to last limitation in base claim 1 above.*)

Regarding **claim 4**, in addition to features recited in base claim 1 (see rationales discussed above), Agraharam also discloses wherein the network layer address of the first node comprises an Internet Protocol (IP) address (*col. 1, line 18 and thereafter.*)

Regarding **claim 6**, in addition to features recited in base claim 1 (see rationales discussed above), Agraharam also discloses wherein the first node comprises a wireless node (mobile node) (see Figs. 2-3 and element 100.1).

Regarding **claim 7**, in addition to features recited in base claim 1 (see rationales discussed above), Agraharam also discloses wherein the first router (foreign agent) comprises a foreign agent configured to communicate with a home agent on the first node's topologically home sub-network (see Figs. 2-3 and element 104.2).

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Claims 9-12 and 14-15 call for a computer program mirrored the method claims 1-4 and 6-7. Thus, they are rejected by the same rationales applied to claims 1-4 and 6-7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agraharam.

Regarding **claims 5 and 13**, Agraharam discloses the claimed invention of base claims 1 and 9, but fails to further disclose the foreign agent sending the de-tunneled message to the mobile node using mobile node's MAC address instead of mobile

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node's IP address. Examiner is taking an Office Notice that it is common or well known to use either IP address or MAC address to send message to an entity in an IP network to utilize the uniqueness of the MAC address associated with each entity.

Thus, it would have been obvious to those skilled in the art having Agraharam reference readily available to contemplate the implementation or modification to send message from foreign agent to mobile node using mobile node's MAC address to utilize the uniqueness of the MAC address associated with each entity.

Moreover, in a difference rationales, a skilled artisan would have contemplate of placing an address resolution protocol (ARP) server to resolve MAC address from IP address to arrive the claimed invention with a motivation to utilize the uniqueness of the MAC address associated with each entity.

Allowable Subject Matter

6. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed route optimization in a mobile IP environment of base claims 1 or 9 and further limit with remote binding processes between mobile node and multiple corresponding nodes in a manner as recited in the dependent claims 8 and 16.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Khalil et al (USP 6,578,085).

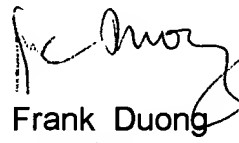
La Porta et al (USP 6,496,505).

Karagiannis, Mobile IP-State of the Art Report, Ericsson, pages 1-63, 1999.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is (571) 272-3164. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Frank Duong
Examiner
Art Unit 2666

February 14, 2005